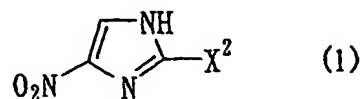
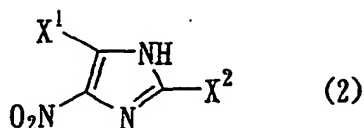


## CLAIMS

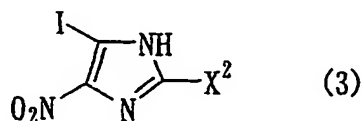
1. A method for producing a 4-nitroimidazole compound represented by general formula (1):



wherein X<sup>2</sup> represents a chlorine atom or bromine atom, comprising iodinating a 4-nitroimidazole compound represented by general formula (2):



wherein each of X<sup>1</sup> and X<sup>2</sup> represents a chlorine atom or bromine atom, and then reducing the obtained 5-iodo-4-nitroimidazole compound represented by general formula (3):



wherein X<sup>2</sup> is the same as defined above.

2. The production method according to claim 1, wherein an iodinating agent is a halogen molecule, hydriodic acid, or a metal salt of hydriodic acid.
3. The production method according to claim 2, wherein the metal salt of hydriodic acid is sodium iodide, potassium iodide, lithium iodide, zinc iodide, magnesium iodide, or aluminum iodide.
4. The production method according to claim 3,

wherein the iodinating agent is used to the compound (2) at a molar ratio between 1.5 : 1 and 15 : 1, and the iodinating agent is sodium iodide.

5. The production method according to claim 1, wherein the reaction is carried out in the presence of a phase-transfer catalyst.

6. The production method according to claim 5, wherein the phase-transfer catalyst is used to the compound (2) at a molar ratio between 0.01 : 1 and 1 : 1, and the phase-transfer catalyst is a quaternary ammonium salt, phosphonium salt, or pyridinium salt.

7. The production method according to claim 1, wherein the reducing agent is a hydrogenation reducing agent, and the reducing agent is used to the compound (3) at a molar ratio between 1 : 1 and 10 : 1.

8. The production method according to claim 1, wherein the reducing agent is a catalytic hydrogenation reducing agent, and the reducing agent is used to the compound (3) at a weight ratio between 0.1% by weight and 40% by weight.

9. The production method according to claim 8, wherein the reaction is carried out in the presence of triethylamine, trimethylamine, or N-ethyldiisopropylamine.